



Letter to the Editor

Reply to 'Methicillin-resistant *Staphylococcus Aureus*'

Turner et al. [1] raise an important and timely issue about the management of CF patients suffering chronic infection with methicillin-resistant *Staphylococcus aureus* (MRSA), given that the prevalence of MRSA in respiratory cultures of CF patients has increased over the past decade. In our study [2], the prevalence of chronic MRSA colonization in the CF Center of the University Hospital of Brussels was 12.6%. Our spirometric data showed that a MRSA episode entailed an FEV₁ decline that was almost double that predicted for CF patients who could remain unaffected by MRSA. These results prompted us to support the need for a more pro-active policy of MRSA management of CF patients which might include enhanced segregation, infection control and eradication. While segregation avoids cross-infections, we acknowledge that it also provokes social isolation of a CF patient, who is already burdened by a complicated and time-consuming CF management schedule.

Upon examination of the follow-up period in the cohort used for our study [2], we identified three patients (i.e., 15%) who cleared MRSA without eradication treatment. Interestingly, two of these three patients had a negative screening swab of the nose; this could provide a clue to define a subgroup which can become free of MRSA even after a certain period of recurrent positive cultures for MRSA. Given the limited number of such patients reported by Turner et al. [1] or by us, generalization of these results should be handled with caution. To fully delineate the impact of MRSA colonization larger prospective longitudinal studies are needed, preferably complemented by molecular characterization of MRSA including differentiation between more aggressive strain carrying virulence factors such as PVL [3]. Propelled by the urgent need for more convincing data about aggressive MRSA treatment, MRSA patient segregation and MRSA screening, we are now performing a multi-centre prospective study, linking molecular types to clinical outcomes. We would like to identify strains of MRSA which are more

virulent and should be isolated and also identify subgroups of patients which can benefit most from eradication of MRSA.

References

- [1] Turner E, Brownlee KG, Denton M. Letter to the editor: Methicillin-resistant *Staphylococcus aureus*; 2012.
- [2] Vanderhelst E, De Meirleir L, Verbanck S, Piérard D, Vincken W, Malfroot A. Prevalence and impact on FEV₁ decline of chronic methicillin-resistant *Staphylococcus aureus* (MRSA) colonization in patients with cystic fibrosis. A single-center, case control study of 165 patients. J Cyst Fibros 2012 Jan;11(1): 2-7.
- [3] Elizur A, Orscheln R, Ferkol T, Atkinson J, Dunne W, Buller R, et al. Pantone-Valentine Leukocidin-positive Methicillin-resistant *Staphylococcus aureus* lung infection in patients with cystic fibrosis. Chest 2007;131:1718-25.

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